

NOMENCLATORIAL NOTES ON THE ORCHIDACEAE - IV

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The authors have had a special interest in the genus Encyclia for several years, and we hope to publish an illustrated revision of the Mexican species in the near future. We herewith validate the necessary new combinations and new taxa, to make these names available for use in anatomical and other studies which may antedate the revision. In the present note we will give synonyms other than the basionym only in cases of special interest.

The distinctions between Encyclia and Epidendrum have been discussed by Dressler (Brittonia 13: 253-266. 1961). We have treated the two major groups within Encyclia as sections, but we will now treat them as subgenera to facilitate the delineation of distinctive subgroups within each. These subgenera are compared in the accompanying table. While these groups differ in several tendencies, none of these gives a really sharp separation. The shape of the column is the most constant feature and it is easily seen, but there are a few species which do not conform well, even in this feature. Thus, we feel that these two groups are best classified as subgenera of a single genus.

1. ENCYCLIA subgenus OSMOPHYTUM (Lindley) comb. nov.
- Epidendrum subgenus Osmophytum Lindley, Hook.
Journ. Bot. 3: 81. 1841. Type: Epidendrum
fragrans Sw.

Lindley first named this group as a section, in 1839 (Bot. Reg. 25: misc. p. 85), but in other places he used "section," "subgenus" and "division" quite interchangeably. We cannot now explain (or justify) Dressler's modification of Osmophytum to "Osmophyta" (Brittonia 13: 261. 1961).

- 1a. ENCYCLIA section OSMOPHYTUM

This section includes most members of the subgenus and is quite diverse in some features, but all the extremes are connected by intermediate species.

- 1b. ENCYCLIA section HORMIDIUM (Lindley) comb. et stat. nov. - Epidendrum subgenus Hormidium Lindley, Hook. Journ. Bot. 3: 81. 1841.
Type: Epidendrum uniflorum Lindley (= Encyclia triptera).

This small group includes E. grammatoglossa, E. rhynchophora, E. triptera and possibly one or two

Subgenus Encyclia

Mid-tooth of column short, usually broadly deltoid, separated from the lateral teeth by broad, shallow sinuses, closely appressed to the anther, not covered by a fleshy, knob-like appendage

Capsule not sharply 3-angled or 3-winged

Flower and plant tissues without large crystals

Column often winged

Callus usually 2 fleshy ridges with an elliptic or boat-shaped depression in the middle

Inflorescence usually without a prominent spathe

Pseudobulbs usually ovoid or conic-ovoid, rarely flattened

Leaves thick and leathery

Subgenus Osmophytum

Mid-tooth of column ("ligule") narrowly deltoid, ligulate or subflabellate, not closely appressed to the anther, usually more or less covered by a fleshy, knob-like appendage, which is obtuse or truncate and separated from the lateral teeth by deep and usually acute sinuses

Capsule usually sharply 3-angled or 3-winged

Flower and plant tissues usually filled with large crystals

Column never winged

Callus usually a thickened pad

Inflorescence often with a prominent spathe

Pseudobulbs often somewhat flattened

Leaves thinner

A comparison of the subgenera Encyclia and Osmophytum

other species of South America; it may be distinguished by the very long apical appendage ("mid-tooth") of the column, the broad, rounded lateral lobes of the lip and the small, acute or acuminate mid-lobe. Hormidium has been treated as a distinct genus at times, but never very clearly delimited. Until very recently, at least, this name was used only for E. triptera and its several synonyms and for several species of true Epidendrum which have no close relationship with E. triptera.

1c. ENCYCLIA section EUCHILE, sect. nov. - Caulis pseudobulbosus, ovoideus; labellum magnum, subintegrum; columna clavata, apice trilobulata. Type: Epidendrum mariae Ames.

This section includes only the type and the closely allied E. citrina. These species agree with the other species of subgenus Osmophytum in the fleshy appendage ("mid-tooth") at the apex of the column, but are otherwise somewhat anomalous in all their features.

2. ENCYCLIA subgenus ENCYCLIA

Type: Encyclia viridiflora Hooker

2a. ENCYCLIA section ENCYCLIA

This section corresponds to the genus Encyclia as it has been used by many authors. Species such as E. bractescens, E. kienastii and especially E. microbulbon show strong relationships with section Leptophyllum.

2b. ENCYCLIA section BRACHYCOLUMNA (L. Wms.) comb. nov. - Epidendrum section Brachycolumna L. Wms., Amer. Orchid Soc. Bull. 10: 309. 1942.

Type: Epidendrum brachycolumna L. Wms.

This section includes only the type, an unusual and probably primitive species with eight rather than four pollinia. It is most closely related to the members of the following section.

2c. ENCYCLIA section LEPTOPHYLLUM, sect. nov. -

Caulis pseudobulbosus, subsphaericus; folia lineares; labellum integrum, subadnatum, papillosum vel striatum; columna brevis, lobuli laterales longiores, aliiiformes. Type: Epidendrum tenuissimum Ames, Hubb. & Schweinf.

This rather uniform little group includes E. cyanocolumna, E. distantiflora, E. luteorosea, E. subulatifolia and E. tenuissima. Aside from their very narrow leaves, most of them are vegetatively like the members of section Encyclia in miniature. The column, too, resembles that of section Encyclia, but the lateral teeth or lobes are large and somewhat wing-like (extended apically, not laterally as are the true column-wings in many species of section Encyclia).

2d. ENCYCLIA section DINEMA (Lindley) comb. et stat.

nov. - Dinema Lindley, Gen. & Sp. Orch. Pl.

111. 1831. Type: Epidendrum polybulbon Sw.

This section includes only the type species, which vegetatively resembles subgenus Osmophytum, but florally is most closely allied to sections Leptophyllum and Encyclia. This, as with the other sections here named, fits comfortably in our broader concept of Encyclia, but it would be a misfit in any more narrowly delineated genus (unless monotypic).

NEW COMBINATIONS IN ENCYCLIA

- ENCYCLIA ADENOCARPON subsp. TRACHYCARPA (Lindley) comb. et stat. nov. - Epidendrum trachycarpum Lindley, *Bentham Bot. Voyage Sulph.* 172. 1846.
- ENCYCLIA ALATA subsp. PARVIFLORA (Regel) comb. et stat. nov. - Epidendrum alatum [var.] parviflorum Regel, *Ann. Sci. Nat.* IV, 6: 374. 1856.
Epidendrum belizense of Withner, *Orchid Digest* 34: 51-54. 1970, not of Reichenbach
 We have not seen material of the type collection, but Regel's description agrees very well with this otherwise unnamed subspecies.
- ENCYCLIA ALATA subsp. VIRELLA, nom. et stat. nov., based on Epidendrum belizense Reichb. f., *Linnaea* 41: 78. 1876.
Epidendrum virens Lindley & Paxt., *Paxton's Flower Gard.* 1: 152. 1850 [not E. virens Hoffm. 1842].
Epidendrum alatum [var.] viridiflorum Regel, *Ann. Sci. Nat.* IV, 6: 374. 1856 [not Encyclia viridiflora Hooker].
Epidendrum guatemalense of Withner, *Orchid Digest* 34: 51-54. 1970, not of Klotzsch.
 We have based this subspecies on Epidendrum belizense Reichb. f., because a type specimen is known to exist, but we fear that the epithet belizense would now be a source of confusion, because of its recent use for the preceding subspecies.
- ENCYCLIA BACULUS (Reichb. f.) comb. nov. - Epidendrum Baculus Reichb. f., *Bonplandia* 4: 214. 1856.
Epidendrum pentotis Reichb. f., *Linnaea* 41: 81. 1876.
- ENCYCLIA BICAMERATA (Reichb. f.) comb. nov. - Epidendrum bicameratum Reichb. f., *Gard. Chron.* 1871: 1194.
- ENCYCLIA BOOTHIANA subsp. FAVORIS (Reichb. f.) comb. et stat. nov. - Epidendrum favoris Reichb. f., *Gard. Chron.* n. s. 2: 98. 1874.
- ENCYCLIA BRACHIATA (Rich. & Gal.) comb. nov. - Epidendrum brachiatum Rich. & Gal., *Ann. Sci. Nat.* III, 3: 20. 1845.
- ENCYCLIA CHACAOENSIS (Reichb. f.) comb. nov. - Epidendrum chacaoense Reichb. f., *Bonplandia* 2: 20. 1854.
- ENCYCLIA CHONDYLOBULBON (Rich. & Gal.) comb. nov. - Epidendrum chondylobulbon Rich. & Gal., *Ann. Sci. Nat.* III, 3: 20. 1845.
- ENCYCLIA DIOTA subsp. ATRORUBENS (Rolfe) comb. et stat. nov. - Epidendrum atrorubens Rolfe, *Kew Bull.* 1896: 46.

- ENCYCLIA DISTANTIFLORA (Rich. & Gal.) comb. nov. -
Epidendrum distantiflorum Rich. & Gal., Ann. Sci.
 Nat. III, 3: 19. 1845.
- ENCYCLIA GLAUCA (Knowles & Westc.) comb. nov. -
Prosthechea glauca Knowles & Westc., Floral Cab.
 2: III. 1838 - Epithecia glauca Knowles & Westc.,
 Floral Cab. 2: 167, t. 87. 1838 - Epidendrum
glaucum (Knowles & Westc.) Lindley, Bot. Reg. 26:
 misc. p. 29. 1840 [not E. glaucum Sw. 1788] -
Epidendrum glaucovirens Ames, Hubb. & Schweinf.,
 Bot. Mus. Leafl. 3: 70. 1935.
Epidendrum limbatum Lindley, Bot. Reg. 29: misc. p.
 69. 1843 - Encyclia limbata (Lindley) Dressler,
 Brittonia 13: 265. 1961.
- ENCYCLIA GUATEMALENSIS (Klotzsch) comb. nov. -
Epidendrum guatemalense Klotzsch, Allg. Garten-
 zeitung 20: 250. 1852.
Epidendrum dickinsonianum Withner, Orchid Digest 34:
 253. 1970.
- ENCYCLIA HASTATA (Lindley) comb. nov. - Epidendrum
hastatum Lindley, Hook. Journ. Bot. 3: 82. 1840.
- ENCYCLIA KIENASTII (Reichb. f.) comb. nov. -
Epidendrum kienastii Reichb. f., Gard. Chron. III,
 2: 126. 1887.
- ENCYCLIA LANCIFOLIA (Lindley) comb. nov. - Epidendrum
lancifolium Pavon ex Lindley, Gen. & Sp. Orch. Pl.
 98. 1831.
- ENCYCLIA LUTEOROSEA (Rich. & Gal.) comb. nov. -
Epidendrum luteo-roseum Rich. & Gal., Ann. Sci.
 Nat. III, 3: 19. 1845.
- ENCYCLIA NEUROSA (Ames) comb. nov. - Epidendrum
neurosum Ames, Sched. Orch. 1: 17. 1922.
- ENCYCLIA X PERPLEXA (Ames, Hubb. & Schweinf.) comb. et
 stat. nov. - Epidendrum oncidiioides var. perplexum
 Ames, Hubb. & Schweinf., Bot. Mus. Leafl. 3: 108.
 1935.
 This aptly named plant proves to be perfectly
 intermediate between E. bractescens and E. candollei.
 We are confident that it is a natural hybrid of these
 species.
- ENCYCLIA POLLARDIANA (Withner) comb. nov. - Epidendrum
pollardianum Withner, Orchid Digest 34: 117. 1970.
- ENCYCLIA X PROFUSA (Rolfe) comb. et stat. nov. -
Epidendrum profusum Rolfe, Bot. Mag. 140: t. 8551.
 1914.
 Study of a flower from the type shows this to be
 another natural hybrid: Encyclia ambigua X ceratistes.

ENCYCLIA TRIPTERA (Brongn.) comb. nov. - Coelogyne triptera Brongn., Dup. Voy. Coq. Phan. 201, t. 42. 1829.

Brieger and Hunt have shown that this epithet antedates Epidendrum pygmaeum Hooker (Taxon 18: 601. 1969). The epithet tripterum is preoccupied in Epidendrum.

ENCYCLIA VAGANS (Ames) comb. nov. - Epidendrum vagans Ames, Sched. Orch. 6: 76. 1923.

ENCYCLIA VARICOSA subsp. LEIOBULBON (Hooker) comb. et stat. nov. - Epidendrum leiobulbon Hooker, Hook. Journ. Bot. 3: 308, t. 10. 1841.

NEW TAXA

ENCYCLIA AENICTA, sp. nov.

Epidendrum pollardianum Withner, Orchid Digest 34: 117. 1970, as to photograph and most drawings, not as to type specimen.

E. pseudobulbis conicis 1-3 phyllis, foliis ellipticis vel ligulatis, sepalis oblanceolatis, petalis cuneato-spathulatis, labelli subliberi, trilobi, lobis lateralibus oblongis, apice recurvis, intermedio subrotundo mucronato, striato, columna aptera.

Holotype: Mexico; Nayarit, near Jalcocotán, Feb. 1947, flowered in cult. June 1952, E. Yale Dawson s. n. (US 2399076, isotype MO).

This species is closely related to E. diota and E. spatella (syn. E. meliosma), and thus a member of one of the most difficult complexes in the genus. In some areas it hybridizes extensively with E. spatella, but in others they coexist without any sign of intergradation. To make matters worse, the type of E. meliosma cannot now be found. If the specimen is ever located, we may find the customary interpretation of E. meliosma to be incorrect.

ENCYCLIA CRETACEA, sp. nov.

E. pseudobulbis ovoideis, 3 phyllis, foliis ellipticis, glaucis, racemo terminale, sepalis lanceolatis, petalis anguste ellipticis, labelli subliberi, trilobi lobis lateralibus oblongo-linearis, intermedio rhombiformi, striato, columna aptera.

Holotype: Mexico; Oaxaca, 2.8 km. from Tuxtepec highway at km. 21, east of highway on logging road; on oaks in pine-oak forest, 8,250 ft. elev.; 16 Jan. 1971, G. E. Pollard s. n. (US).

A member of section Osmophytum, this species resembles E. citrina in the glaucous, pendent plants, but the flowers are similar to those of E. concolor,

from which it differs in habit, in the form of the lip and in the wingless capsule.

ARTORIMA, gen. nov.

Caulis pseudobulbosus, remotus; folia breves; pedunculus paniculatus; labellum semiadnatum, lobi suborbiculari, callo uncinato retrorso ornatum; stigma rimiformis.

Type: Epidendrum erubescens Lindley

ARTORIMA ERUBESCENS (Lindley) comb. nov. - Epidendrum erubescens Lindley, Hook. Journ. Bot. 3: 87.

1840 - Encyclia erubescens (Lindley) Schltr., Die Orchideen 214. 1914.

Superficially, this beautiful species fits Encyclia rather than Epidendrum, but the floral details do not coincide with those of any known genus. The retrorse, hook-like callus is very unusual, as is the prominent, incurved mid-tooth of the column. The narrow slit-like stigma, with a wider chamber within, is quite unlike that of any related genus.